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10/025,061	12/18/2001	Daniel Thomas Predovic	005306.P072	9423

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R. Alan Burnett  
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP  
Seventh Floor  
1240 Wilshire Boulevard  
Los Angeles, CA 90025-1026

EXAMINER

ALAUBAIDI, HAYTHIM J

ART UNIT	PAPER NUMBER
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2171

DATE MAILED: 09/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/025,061

Applicant(s)

PREDOVIC, DANIEL THOMAS

Examiner

Haythim J. Alaubaidi

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-19,21-33 and 35-40 is/are rejected.
- 7) ☒ Claim(s) 2,20 and 34 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. This communication is a first Non-Final Office Action in regard to Application No. 10/025061, which claims the filing date of December 18, 2001.
2. Claims 1-40 are presented for examination; claims 1, 11, 19, 27 and 33 are independent claims.
3. Claims 1, 3-19, 21-33 and 35-40, are rejected under 35 U.S.C. 102(b).
4. Claims 2, 20 and 34 are objected to as being dependent upon a rejected base claim.

### ***Claim Rejections - 35 USC § 101***

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1 and 11, are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

- (1) whether the invention is within the technological arts; and
- (2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the technological art. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural phenomena) that do not apply, involve, use, or advance the technological art fail to

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promote the "progress of science and the useful arts" (i.e., the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory subject matter. For a method claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts.

As to technological arts recited in the preamble, mere recitation in the preamble (i.e., intended or field of use) or mere implication of employing a machine or article of manufacture to perform some of the recited steps does not confer statutory subject matter to an otherwise abstract idea unless there is positive recitation in the claim as a whole to breathe life and meaning into the preamble. In *Bowman* (*Ex parte Bowman*, 61 USPQ2d 1665, 1671 (BD. Pat. App. & Inter. 2001) (Unpublished)), the board affirmed the rejection under U.S.C. 101 as being directed to non-statutory subject matter.

Although *Bowman* discloses transforming physical media into a chart and physically plotting a point on said chart, the Board held that the claimed invention is nothing more than an abstract idea, which is not tied to any technological art or environment.

In the present case, claims 1 and 11 both recites an abstract idea at the preamble; in addition, the steps in the claim body merely creating boundaries and/or partitions, searching the data within the boundaries and providing the search results, which can be implemented by the use of a pencil and paper. In another words, since the claimed invention, as a whole, is not within the technological arts as explained above, these claims only constitute an idea and does not apply, involve, use, or advance the technological arts, thus, it is deems to be directed to non-statutory subject matter.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 3-19, 21-33 and 35-40, are rejected under 35 U.S.C. 102(b) as being anticipated by Gary Hallmark (U.S. Patent No. 6,014,656 and Hallmark hereinafter).

Regarding Claims 1, 11, 14-16, 19, 27 and 31-32, Hallmark discloses:

defining a plurality of boundaries<sup>1</sup> to logically partition the large set of records into a plurality of buckets (Abstract; see also Figure 1; see also Col 11, Line 61 through Col 12, Line 7) with a predefined sort order (Col 12, Lines 1-7; see also Col 7, Lines 60-66, i.e. ordered list; see also Col 1, Lines 36-39) sort order based on data stored in at least two columns (Col 1, Lines 36-39; see also Col 5, Lines 15-22; see also Figure 1, i.e. ship date and Received date; see also Col 5, Lines 51-61) of a database table (Figure 1) in which at least a base portion (ship date) of each data record is stored (Col 5, Lines 15-22)

in response to a request to retrieve a data record (Col 5, Lines 22-28, i.e. to find the records having 50 or more items and a receive date in 1970...)

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<sup>1</sup> Such as, ship date in Figure 1, of Hallmark.

determining a bucket in which the data record is contained (Col 5, Lines 22-28, i.e. only partitions having a ship date that can meet the known relationship given the fact that the receive data is in 1970 need to be scanned; see also Figure 4 and corresponding text)

retrieving a subset of the large set of records (Figure 4, Elements 445, 450 and 435 and corresponding text).

Regarding Claims 3-4, 12-13 and 28, Hallmark discloses boundary marker and a value stored in respective column (Figure 7, Element 670 and corresponding text; see also Col 7, Lines 47-57; see also Col 11, Lines 15-26; see also Col 12, Lines 34-38).

Regarding Claims 5-6 and 29-30, Hallmark discloses boundary markers are stored as a concatenated list (Figure 7 and corresponding text; see also Col 8, Lines 58-63; see also Col 11, Lines 39-49).

Regarding Claims 7 and 21, Hallmark discloses retrieving other buckets of data (Col 5, Lines 42-45).

Regarding Claims 8-9, 22-23 and 36-37, the limitations of these claims are similar in scope to the rejected claim 1, above. In addition, Hallmark discloses updating the current viewset with a new viewset by sending a new subset of records (Figure 1, and corresponding text with Col 1, Lines 46-55).

Regarding Claims 10, 24 and 38, Hallmark discloses sending the data over a network to a client (Col 4, Lines 27-38).

Regarding Claims 17, 25 and 39, Hallmark discloses altering the query and the size on the number of the returned records (Col 1, Lines 10-22; see also Figure 1 and corresponding text, i.e. Col 1, Lines 35-55).

Regarding Claims 18, 24 and 38, Hallmark discloses skipping boundaries (Col 1, Lines 46-55).

Regarding Claim 35, the limitations of this claim are similar in scope to the rejected claims 7 and 8, above. It is therefor rejected as set forth above.

***Allowable Subject Matter***

8. Claims 2, 20 and 34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is the Examiner's statement of reasons for the indication of allowable subject matter:

Regarding Claims 2, 20 and 34, Applicant's particular system and associated methods for a data mining environment is both limitations of searching the plurality of boundaries for a sequentially-adjacent pair of boundaries as defined by the predetermined sort order that bound the data record in the request and the limitations of generating a query including a search clause defining a data set that is bounded by the sequentially-adjacent pair of boundaries in combination with the other limitations of the

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claims, was not disclosed by, would not have been obvious over, nor would have been fairly suggested by the prior art of record or that encountered in searching of the prior art.

***Other Prior Art Made of Record***

10. a. Bjornson et al. (U.S. Patent No. 6691109) discloses a method and apparatus for high-performance sequence comparison;

b. Bowman-Amuah (U.S. Patent No. 6571282) discloses a block-based communication in a communication services patterns environment; and

c. Reiner et al. (U.S. Patent No. 6289334) discloses an apparatus and method for decomposing database queries for database management system including multiprocessor digital data processing system.

***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

***Points of Contact***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Haythim J. Alaubaidi whose telephone number is (703) 305-1950 and starting October 18 2004 the telephone number will change to (571) 272-4014. The examiner can normally be reached on Monday - Friday from 8:00 AM to 4:30 PM.



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic, can be reached on (703) 308-1436.

Any response to this office action should be mailed to:


The Commissioner of Patents and Trademarks, Washington, D.C. 20231 or telefax at our fax number (703) 872-9306.

Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive, 6<sup>th</sup> Floor Receptionist, Arlington, Virginia. 22202.

*Haythim J. Alaubaidi*

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Patent Examiner  
Technology Center 2100  
September 24, 2004

  
SAFET METJAHIC  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100